

ENGINEERS AUSTRALIA
Western Australia Division



ENGINEERS
AUSTRALIA

CEREMONY REPORT

FREMANTLE FORTRESS- LEIGHTON BATTERY
WW2 COASTAL DEFENCE FACILITIES

Ceremony date: 29 November 2014



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Cover Photo – 6-inch gun emplacement, Leighton Battery, c. 1943

1. Introduction

The original plan for strengthening the defence of Fremantle was to place long range 9.2 inch guns on the mainland at Buckland Hill (Leighton), but it was realised that this strategy would not have prevented the bombardment of Fremantle Harbour by enemy cruisers equipped with 8 inch guns. The focus then turned to Rottnest Island, where 9.2 inch guns could engage hostile ships well before they were in range of the port. Additional 6 inch gun batteries were installed at Rottnest, Arthur Head (Fremantle) and Swanbourne. When war broke out on 3 September 1939 the batteries at Rottnest Island, Arthur Head and Swanbourne were operational. In early 1942 it was decided to relocate the Arthur Head battery to Buckland Hill (Leighton). Additional batteries were subsequently installed at Garden Island and Point Peron to complete Fortress Fremantle.

The Leighton Battery facility at Buckland Hill, Mosman Park, a few kilometres north of Fremantle, was the most extensive of the mainland coastal defence facilities completed during the early 1940s. Two 6 inch coastal artillery guns at Leighton became operational in February 1943. The battery took over from the Arthur Head (Fremantle) battery the role of an 'Examination Battery', keeping a lookout for ships arriving in Gage Roads. A battery of four 3.7 inch anti-aircraft guns was also installed at Buckland Hill in late 1941. In 1944 the threat of enemy air attack in lieu of naval attack prompted the decision to install three 5.25 inch dual purpose coastal artillery/anti-aircraft guns and they became operational at Leighton in 1947.

Engineering Heritage National Markers were awarded to Fremantle Fortress-Rottnest Island on 10 Nov, 2010, and to Fremantle Fortress-Leighton Battery on 23 June 2014. The ceremony to dedicate the Leighton Battery award took place on 29 November 2014, at the Leighton Battery site.



Figure 1. Aerial photo of the Buckland Hill site (Courtesy Google Maps)

2. Ceremony and Distinguished Guests

The dedication ceremony was organized by the Royal Australian Artillery Historical Society WA (Inc) (RAAHSWA), the group that manages the Leighton Battery site, with assistance from Engineering Heritage WA (EHWA) and the Engineers Australia WA Division Office. The full list of invitees is included in Appendix 1. Distinguished guests who were acknowledged and apologies received are listed on the running sheet (Appendix 2).

The Interpretation Panel and marker were located in a convenient location for the ceremony, and later moved to their permanent location elsewhere on the site.

3. Program and Speeches

The master of ceremonies was Emeritus Professor Mark Bush, EHWA Chair. Speeches were given by the Mr William Neethling, Engineers Australia Western Australian Division President; Brigadier AG Warner AM LVO, Representative Colonel Commandant, Royal Regiment of Australian Artillery; and Mr Phillip Rowson, Royal Australian Artillery Historical Society WA.

The speech notes are included in Appendix 2.

The Interpretation Panel was officially unveiled by Brigadier AG Warner and Mr David Carter, President, Royal Australian Artillery Historical Society of WA. Mr Carter then formally accepted the award on behalf of the RAAHSWA.

Following the conclusion of the ceremony, members of RAAHSWA led tours of the Leighton Battery historic site.

4. Ceremony Brochure

A ceremony brochure was produced by Engineers Australia, WA Division. See Appendix 3.

5. Media Coverage

The ceremony was reported by local newspaper The Post, 5 December 2014. See Appendix 4.

6. Costing

Item	Cost	Source of funding
Panel Design	\$564	EHA
Panel manufacture	\$2358	Town of Mosman Park and RAAHSWA
Panel delivery	\$120	Town of Mosman Park and RAAHSWA
Marker	\$200 approx.	EHA

The cost of the installation of the interpretation panel and the dedication ceremony were met by funds provided by the Town of Mosman Park, the Mosman Park Returned Serviceman's League, the National Serviceman's Association and the RAAHSWA.

7. Interpretation Panel and Marker Disc

The interpretation panel design is shown in Appendix 5. The panel is vitreous glass enamel, 1200 mm wide and 600 mm high. It is mounted on a stainless steel frame and has been positioned at a prominent location on the Leighton Battery site (Fig. 2). The marker is the standard 300 mm diameter vitreous enamel on steel marker used by EHA.

8. Letters of Appreciation

Following the ceremony, letters of appreciation was received from Mr David Carter, President, Royal Australian Artillery Historical Society of WA., and Ms Haylie Clark, Community Development Officer, Town of Mosman Park. See Appendix 6.

9. Photographs



Figure 2. The Interpretation Panel in its permanent location in front of an air vent marking the underground complex below. (Photo: Don Young)



Figure 3. The Interpretation Panel in a temporary location for the dedication ceremony. (Photo: Lloyd Margetts)



Figure 4. The facilities set up for the dedication ceremony. The Interpretation Panel is located between the fenced gun pit and the marquee.
(Photo: Lloyd Margetts)



Figure 5. Brigadier AG Warner (left) and Mr Will Neethling (right) presenting speeches prior to the unveiling of the Interpretation Panel
(Photo: Lloyd Margetts)



Figure 6. Brigadier AG Warner and Mr David Carter officially unveiling the panel
(Photo: Lloyd Margetts)



Figure 7. Mr. David Carter, accepting the award on behalf of RAAHSWA
(Photo: Lloyd Margetts)



Figure 8. Mr George Howell, Patron, The National Servicemen's Association (right) and Mr Ray Palmer, President, The National Servicemen's Association (left) (Photo: Lloyd Margetts)



Figure 9. Mr Robert Mitchell and Brigadier AG Warner (Photo: Lloyd Margetts)



Figure 10. Guests inspecting interpretation material during the post-ceremony tour (*Photo: Lloyd Margetts*)



Figure 11. The tour of the underground facilities (*Photo: Lloyd Margetts*)

APPENDIX 1 - Invitation List

	Name	Organisation/Role
Fed. Gov:	Hon. Julie Bishop	MP Member for Curtin
	Senator the Hon. David Johnston	Minister for Defence
State Gov:	Hon. Colin J Barnett MLA	Premier
	Hon. Liza M Harvey MLA	
	Hon. Albert P Jacob MLA	
Local:	His Worship The Mayor Cr Ron Norris	Mayor, Town of Mosman Park
	Mr. Kevin Poynton	CEO, Town of Mosman Park
	Ms. Kristy Arnott	Manager Community Development, Town of Mosman Park
	Ms. Haylie Clark	Grants Officer, Town of Mosman Park
	Mr Matthew Macpherson	Executive Manager Technical Services, Town of Mosman Park
	Mr. Thomas Abbott	Executive Manager Regulatory Services, Town of Mosman Park
Special Guests:	Brigadier A. G. Warner AM LVO	Representative Colonel Commandant of the Royal Regiment of Australian Artillery
	Mr. B. G. Campbell OAM	Past President of the Royal Australian Artillery Historical Society
	Dr. W. H. Clough AO OBE	Former Patron of the Royal Australian Artillery Association Historical Society of WA
Organisations:	Mr. M. Hipkins	Council Representative, National Trust of Australia (WA)
	Mr. T. Perrigo	CEO, National Trust of Australia (WA)
	Ms. Soula Veyradier	President, Museums Australia WA
	Mr. R B Mitchell CD UE	CEO, Museums Australia WA
	Emeritus Professor Alan Robson AO CitWA	Chair, Western Australian Museum
	Mr. Alec Coles OBE	CEO, Western Australian Museum
	Mr. John Driscoll	Chair, Rottnest Island Authority
	Mr. Paolo Amaranti	CEO, Rottnest Island Authority
	Dr. J. Limerick	Chairman, Fremantle Ports
	Mr. C. Leatt-Hayter	CEO, Fremantle Ports
	Ms. Ainslie De Vos	Manager External Affairs, Fremantle Ports
	Mr. Alan Pearce	Administrative Manager, Fremantle Ports
	Mrs. Marion Fulker	Chair, Heritage Council of WA
	Mr. Graeme Gammage	Executive Director, Heritage Council of WA
	Mr. Ted Zappara	President, Rottnest Voluntary Guides Association (Inc)
	Mr. Graham McEwen	President, The Army Museum of WA Foundation
	Mr. G. Howell	Patron, The National Servicemen's Association

	Mr Ray Palmer	President, The National Servicemen's Association
	Mr Stuart Fairburn	Hon Secretary, The National Servicemen's Association
	Mr Ken Pages-Oliver	Hon Treasurer, The National Servicemen's Association
	Mr M. E. Downey	The National Servicemen's Association
	Cr Bill Massie	City of Fremantle
	Dr. Brad Pettitt	Mayor, City of Fremantle
	Mr. R. B. Farrelly	RFD President, RAA Association Australia WA
	Captain Brett Fowler	Battery Commander, RAA
	Mr Lloyd Margetts	EHWA
	Mr Will Neethling	President, Engineers Australia, WA Div
	Mr Don Young	EHWA
	Mr Ian Maitland	EHWA
	Mr Mike Taylor	EHWA
	Emeritus Professor Mark Bush	Chair, EHWA
	Mr Keith Baker	Chair, EHA
	Mr Owen Peake	EHA, Chair Heritage Recognition Committee
	Mr Rodney Harrison	
	Ms Valerie Booker	
	Ms Trish Fynmore	
	Mr Brett Pollock	
	Mr Neil Lodge	
	Mr Barry Ellis	RAAHS
	Mr Phil Rowson	RAAHS
	Mr Roy Smith	
	Ms Mary Coley	
	Mr Donald Coley	
	Mr David Carter	President, Royal Australian Artillery Historical Society of WA
	Ms Sue Lawrence	
	Mr John Blylevens	RAAHS
	Mr Charles Fisher	
	Mr Don Rae	Royal Australian Artillery Historical Society of WA
	Mr Phil Pougnauld	
	Mr Stan Davies	
	Mr Bob Arnold	
	Mr Basil Twine	
	Ms Jenny Twine	

APPENDIX 2 - Speeches

Master of Ceremonies, Emeritus Professor Mark Bush, EHWA Chair

Good morning Ladies and Gentlemen, my name is Mark Bush. It is my pleasure to welcome you all to this ceremony to celebrate the award of Engineering Heritage National Marker to the Leighton Battery.

I am the Chairman of Engineering Heritage WA, which is affiliated with Engineering Heritage Australia, an interest group of Engineers Australia. I will be your MC today. Before continuing I'd like to acknowledge the Noongar people as traditional custodians of the land on which we are gathering for today's ceremony, and to pay my respects to their elders, past, present.

I acknowledge the attendance of the following distinguished guests :-

Brigadier Gerry Warner, Representative Colonel Commandant of the Royal Regiment of Australian Artillery

Councillor Ron Norris, Mayor of the Town of Mosman Park,

Mr Tom Perrigo, CEO National Trust of Australia WA

Mr Max Hipkins, Councillor of the National Trust of Australia WA and Mayor of Nedlands

Mr Robert Mitchell, Executive Officer, Museums Australia WA

Councillor Bill Massie, representing the Mayor of Fremantle, Dr Brad Pettit

Mr Alec Coles, CEO, WA Museum

Mr Paolo Amaranti, CEO Rottnest Island Authority

Mr Will Neethling, President, Engineers Australia WA Division

Mr George Howell, Patron, National Servicemen's Association

Mr Ray Palmer, President, National Servicemen's Association

Ms Trish Fynmore, Mr Brett Pollock and Mr Rodney Harrison representing the Mosman Park RS&L

Mr Bob Farrelly, President, Royal Australian Artillery Association of WA
and

Mr David Carter, President, Royal Australian Artillery Historical Society of WA

Apologies have been received from

The Hon Julie Bishop, MHR, Member for Curtin

The Hon Colin Barnett, MLA, Member for Cottesloe

Mr Kevin Poynton, CEO, Town of Mosman Park

Dr Harold Clough, former Patron of the Royal Australian Artillery Association Historical Society of WA

And finally I am saddened to report that Mr Bruce Campbell, Foundation member and Past President of the Royal Australian Artillery Historical Society accepted an invitation to attend today, but passed away on the 4th November.

To start the formal presentations today, I now invite Mr Will Neethling, President of the WA Division of Engineers Australia, to tell us a bit about the Engineers Australia Engineering Heritage Recognition Program.

Introduce Brigadier A G Warner AM LVO

Representative Colonel Commandant, Royal Regiment of Australian Artillery
to give us

'An Introduction to Garrison Artillery in Western Australia'

Invite Mr Phillip Rowson of the
Royal Australian Artillery Historical Society WA, who will speak about
'FREMANTLE – Port of Convoys - Strategic Naval Base'

I would now like to invite
Brigadier A G Warner and Mr David Carter
to unveil the Engineering Heritage Australia Interpretation Panel

I now invite Mr David Carter, President, Royal Australian Artillery Historical Society, to
formally accept the panel.

Closing Remarks

Ladies and gentlemen, this brings us to the end of the formal proceedings. Thank you
all for joining us today, particularly the many very distinguished guests. Your attendance
is a sign of how important the Fremantle Fortress was to WA, and that it continues to be
a significant engineering and cultural feature of the city.

Following light refreshments, members of the RAAHS will be conducting tours of the
battery for those who have indicated their interest.

Mr Will Neethling, President WA Division, Engineers Australia

- Distinguished guests, members of the Royal Australian Artillery Historical Society, members of Engineers Australia, Ladies and Gentlemen.
- It is with great pleasure I accepted the invitation from Engineering Heritage WA to take part in this commemoration ceremony for the award of an Engineering Heritage National Marker to the Fremantle Fortress – Leighton Battery World War 2 Coastal Defence Facilities
- This ceremony is the 188th celebration of Engineering Heritage Australia's Heritage Recognition Program. These ceremonies have occurred over a period of 30 years, commencing in 1984.
- The 188 sites and structures recognised to date are located in every State and Territory and cover virtually all aspects of our engineering heritage including :-

Bridges

Dams

Roadworks

Pipelines and pumping stations

Railways

Ports

Agricultural Machinery Innovations

Military Engineering

When a site is approved for recognition an interpretation panel, giving details of the history of the site, is installed at a suitable location for visitors to read about the engineering heritage of the site.

Recent sites recognised for recognition in Western Australia are

- The Mitchell Freeway Stage 1, a feature of which was the extensive consolidation of the Narrows Interchange area by sand draining, a world class civil engineering achievement
- The Western Australian Standard Gauge Railway Project which saw the building of standard gauge railway track and facilities from Kalgoorlie to Kwinana and the modernisation of the State's railway facilities

- Perth's first public water supply scheme, bringing hills water from Victoria Dam to Mt Eliza, completed in the 1890s
- The NASA Space Tracking Station at Carnarvon, a joint American Australian facility which played a key role in the 1969 moon landing
- The Fremantle Fortress – Rottnest Island World War 2 Coastal Defence Facilities

Like the Rottnest Coastal Defence Facilities the Leighton Battery being recognised today is part of the comprehensive defence facilities set up by the Australian Government prior to and during World War 2

The successful nomination of the Leighton Battery was prepared for Engineering Heritage WA by Mark Bush and Don Young.

They received considerable assistance from the Royal Australian Artillery Historical Society of WA and in particular Mr Don Rae and I wish to thank him and his committee for their valuable contribution.

This ceremony would not have been possible without the support and financial contribution of the Town of Mosman Park, Mosman Park R&SL and the National Serviceman's Association and on behalf of Engineers Australia I thank them for their support.

The Fremantle Fortress – World War 2 Coastal Defence Facilities is a worthy addition to the list of Australian engineering projects which have been recognised by Engineering Heritage Australia.

AN INTRODUCTION TO GARRISON ARTILLERY IN WESTERN AUSTRALIA

As we are commemorating the centenary of the commencement of WW1, so defining in our national history, I start my remarks there. War in Europe was declared on 4 August 1914 at 11PM London time, or 9AM Melbourne time on 5 August 1914.

Shortly afterwards the brand-new German freighter SS Pfalz, built the year before and boasting very modern refrigerated holds, headed for Port Phillip Heads. However the news of war had reached Fort Queenscliff, the local coast artillery HQ controlling the separate forts in the area. At about 12.45PM Gun Emplacement No6 at Fort Nepean fired a 100 lb 6" round to compel the ship's surrender. After a short struggle on the bridge between the German Captain and the Australian Pilot, the SS Pfalz was taken into captivity.

This shot at Fort Nepean, less than four hours after war was declared in far-off London, was the first British Empire shot in WW1, the first of the hundreds of millions fired before the guns fell silent on 11 November 1918.

This event was of course not the start of Garrison Artillery in Australia. The various wars in Europe, the seeming constant threat of war, the vulnerability of the infant settlement in Sydney to hostile men-of-war arriving unexpectedly, led the first NSW Governor, Arthur Phillip, to construct several redoubts around Sydney Cove. Initially iron 6-pounder guns from HMS Sirius were employed at these sites.

In the following years and commensurate with the growth of the colonies, the threat, capability development, and of course finances, Garrison or Coast Artillery facilities were developed around Australia. Here in WA work began on a battery site at Arthur Head in the 1840s, and some fifty years later the Princess Royal and Plantagenet Batteries were constructed at King Georges Sound. This initiative followed a strategic assessment by the older, wealthier eastern colonies linking the security of the east and west of the continent. As a further consequence, a unit of permanent Gunners was established.

More recently, the formidable naval power of Germany and Japan provided the imperative for the development of Fortress Fremantle during WW2, and of course this Leighton Battery site as a key element of that defence. Here this morning, it is hard to envisage huge guns pointing out to sea, the area bristling with anti-aircraft guns, searchlights ready to interrogate the threatening night sky, and warships patrolling offshore. That scenario made Fremantle the best defended port in Australia and facilitated its critical contribution to the war effort and our nation.

As the Royal Australian Artillery Colonel Commandant, and one excited at least as much by the crash of guns and a whiff of cordite as by construction and concrete, I regard Leighton Battery of significance additional to its engineering heritage. Let me mention a few things that make it so:

Its construction and operation required complex cooperation, liaison and procedures at varying levels – Army/Navy, Artillery/Engineers, Military command/Civil authorities;

the orchestration of coast artillery, anti-aircraft guns, radar, searchlights;

ammunition management and logistics for different weapon systems in dispersed locations; and

the employment of women in pivotal, demanding and technical roles.

Not surprisingly the post-war years saw a realigned world, reassessment of security and strategy, and advances in military technologies and capabilities. Most coast artillery batteries moved to a care and maintenance existence. For some time Fremantle remained one of the few defended ports in Australia and the Army continued to use Leighton Battery until the early 1960s when Coast Artillery was disbanded. At that time the permanent Gunners of the Australian artillery had manned our coast defences for more than a century.

In 2014 some things remain the same. Australia is still a maritime nation, surrounded by protective seas, which can be considered highways by others. Perhaps the future prosecution of a maritime defence strategy will see the need for a 21st century manifestation of Leighton Battery, in the form of long range land-based anti-ship missiles with precision strike capability.

I take this opportunity to congratulate and thank the RAA Historical Society of WA for its custodianship and presentation of Leighton Battery, and warmly thank Engineering Heritage Western Australia for this splendid recognition of the site with an Engineering Heritage National Marker. I can do no more than conclude with the simple approbation, appreciated by all Gunners at the end of a successful fire mission – **Good Shooting**.

“FREMANTLE – PORT OF CONVOYS – STRATEGIC NAVAL BASE

The Indian Ocean vista away to our west is as daunting as it is spectacular and yet today we can enjoy this panorama, comfortable that little of imminent danger lurks beyond our observation. Those who stood here in 1942 & 43 must have been aware that out there, over that same horizon was a danger such as they had never faced before.

Distinguished guests, Ladies & Gentlemen, my name is Philip Rowson and on behalf of the Royal Australian Artillery Historical Society of WA, the custodians of this site it is my privilege to welcome you to the Leighton Battery tunnel complex which is being invested today with an Engineering Heritage National Landmark by Engineering Heritage Australia.

Since the completion of Fremantle Harbour, protection of this vital asset has fallen to the various Military Commands of the day. Forts Forrest and Arthur Head were commissioned in 1913 to protect both sides of the port complex. In the mid-1930s the Commonwealth of Australia commenced an upgrade of its fixed coastal defence artillery batteries to protect key Australian ports from possible enemy attack. Rottne's formidable gun batteries and Kingstown barracks were developed and Fremantle was designated as "Port of Convoy." It is noteworthy at this point to acknowledge that both the harbour at Port of Fremantle and the Rottne Island fortifications have already been recognised by Engineering Heritage Australia.

By mid-1939 there was controversy within Government whether Australia should concentrate on forming an expeditionary force, to fight an ever increasingly belligerent Germany in Europe, or a home defence force to defend against invasion by Japan. The public was similarly torn between the dangers presented by Germany and Japan. Prime Minister Robert Menzies, having considered the threat, decided to commit our forces to both spheres of operations.

In 1940 the Japanese Government was proposing the Greater East Asia Co-Prosperity Scheme. The original concept was an idealistic wish to "free" Asia from colonial powers, but soon, nationalists saw it as a way to gain resources to keep Japan a modern power, and militarists saw the same resources as raw materials for war. On December 7th 1941 our worst fears were realised when The Japanese Imperial Forces, in response to trade embargos imposed on Japan, and seeking to remove military barriers to her capture of the resource rich Dutch East Indies, attacked The American Pacific Fleet Base at Pearl Harbour on Hawaii, in the hours preceding this she landed troops along the coast of Malaya. She would go on to occupy Singapore, Burma, The Philippines, Borneo, Micronesia and by March 1942 the Dutch East Indies, a major source of oil. Japan was now well placed to launch raids across Northern Australia. Using Carrier based fighters, dive bombers and High Altitude bombers to Darwin was bombed in Feb 1942. Selective bombing and strafing across NW WA, NT and Nthn Qld occurred throughout 1942 and 1943. Japan's intention was to deny allied forces the use of airfields and ports across Northern Australia to launch reprisal attacks.

In Fremantle, as the threat scenario changed from Naval bombardment and U-Boat attack, to attack from the air by carrier-launched waves of dive bombers and fighter aircraft, improvements to our air defence plan became an urgent priority. Batteries of

Anti-aircraft guns both heavy and light, search light batteries, air defence radar and RAAF assets were rushed into service in the region.

The Port of Fremantle and Cockburn Sound continued to be a busy place with naval vessels, cargo ships & troop carriers waiting in Gage Roads for convoys to form up or waiting for space in the harbour to berth. HMT Queen Mary for example visited Fremantle 19 times between 1940 & 43. Fremantle and Cockburn sound became a fully militarized Port facility, incorporating the largest submarine base in the Southern Hemisphere with more than 170 American, British and Dutch Submarines and their attendant vessels stationed here.

Towards the end of 1942 authority had been given to relocate the Fort Arthur Head guns to Leighton where their prime task of "Examination Battery" could be fulfilled more satisfactorily. This role saw them covering The Examination Area, an allocated patch of Gage Roads that all shipping had to pass through to establish its bona fides with the port authorities. The guns were emplaced on temporary mountings as it was already planned to equip the site with more modern weapons as soon as they became available from the United Kingdom. In the meantime over 300 metres of tunnels were excavated in places up to 10 metres below ground in which magazines for the storage of ammunition, communications, gun crew rest areas and observation posts were constructed. The Battery Commander was a mining engineer who used his knowledge to develop the complex. Construction expertise and labour was provided by Army Engineers and Artillerymen, working around the clock to excavate the tunnels using pick, shovel and the odd pneumatic drill. They constructed internal brick walls, concrete floors and timber or brick arch roofing from local materials. They also removed and camouflaged all spoil. By 1943 The Port of Fremantle had become Fortress Fremantle, co-ordinating HQ was located at the Artillery Barracks in Burt St and the port was ringed with observation posts, radar installations and searchlight Batteries. 18 long, medium and short range guns emplaced at Swanbourne, Leighton, Fremantle, Cape Peron, Rottnest & Garden Islands provided coastal defence, while 40 Heavy anti-aircraft guns combined with 36 light anti-aircraft guns covered the skies. This made Fremantle the most heavily defended Port in Australia. Two Cruiser warships patrolled the waters off the port with aerial reconnaissance support from fighter aircraft, medium-range Beauforts and long-range Catalina aircraft. All in all, Fremantle was prepared for the very worst that could be envisaged, just beyond that horizon.

It is a testament to the skill and determination of the West Australians who constructed the Leighton Battery Tunnel Complex, that while facing a seemingly unstoppable foe, they constructed, within six months, this entire facility to such a high standard that it remains today, mostly intact after more than 70 years. Indeed, it speaks volumes about their determination to defend our port, our city, our home, come what may.

Lest we forget.

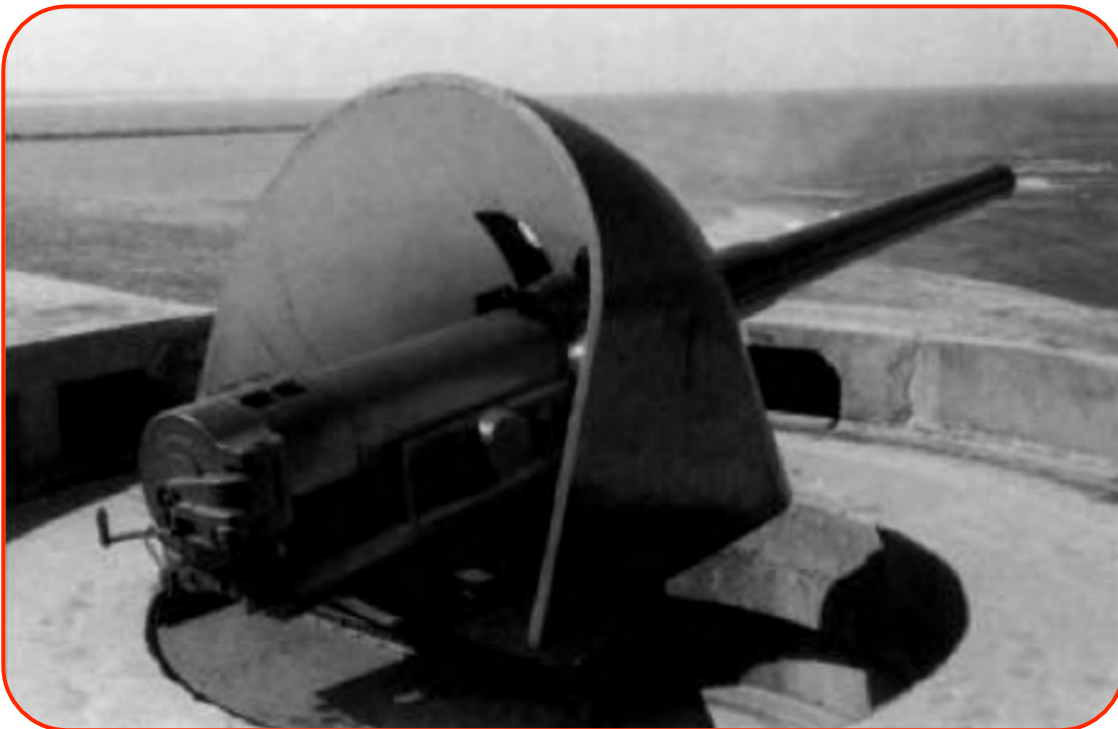
**FREMANTLE FORTRESS – LEIGHTON BATTERY
WW2 COASTAL DEFENCE FACILITIES**

Engineering Heritage National Marker

Commemoration Ceremony

Leighton Battery

Saturday November 29, 2014



PROGRAM BOOKLET



ENGINEERS
AUSTRALIA



TOWN OF
MOSMAN PARK

Program

Acknowledgement of Traditional Ownership of Land

Formal welcome, recognition of distinguished guests and apologies

Professor Mark Bush, Chairman of Engineering Heritage Western Australia

Introduction by Professor Bush of Mr Will Neethling, President of Engineers Australia
Western Australian Division

Engineers Australia Engineering Heritage Recognition Program

Mr Will Neethling

An Introduction to Garrison Artillery in Western Australia

Brigadier A G Warner AM LVO
Representative Colonel Commandant, Royal Regiment of Australian Artillery

FREMANTLE – Port of Convoys – Strategic Naval Base

Mr Phillip Rowson
Royal Australian Artillery Historical Society WA

Unveiling of Engineering Heritage Australia Interpretation Panel

Brigadier A G Warner and Mr David Carter

Acceptance of panel

Mr David Carter, President, Royal Australian Artillery Historical Society

Closing Remarks

Professor Mark Bush

Following light refreshments, members of the RAAHS will be conducting tours of the battery for those who have indicated their interest.

Engineering Heritage National Marker

In June 2014 Engineering Heritage Australia advised Engineering Heritage Western Australia that its nomination of Fremantle Fortress – Leighton Battery World War 2 Coastal Defence Facilities met the assessment criteria set down in Engineers Australia's Heritage Recognition Program Guidelines and had been awarded an Engineering Heritage National Marker. The following is a summary of the nomination document.



Fremantle Fortress and Leighton Battery

In the mid 1930s the Government of the Commonwealth of Australia commenced an upgrade of its fixed coastal defence artillery batteries to protect Australian ports from possible enemy attack.

On the west coast priority was given to upgrading and extending the coastal defence system for the Port of Fremantle by establishing new facilities on Rottnest and Garden Islands and modernising the existing batteries on the mainland at Leighton, Swanbourne, North Mole, Fremantle Harbour, South Beach and Point Peron. The combined facilities were known as "Fremantle Fortress".

The original plan for the defence of Fremantle was to place 9.2 inch guns on an elevated site at Buckland Hill in Mosman Park, but it was realised that this strategy would not have prevented long range bombardment of the port by cruisers equipped with 8 inch guns. It was then decided to locate the 9.2 inch guns at Oliver Hill on Rottnest Island which would have allowed engagement of hostile ships before they were in range to bombard the port. It was also decided

to install 6 inch guns at Rottnest (Bickley Point), Arthur Head (Fremantle) and Fort Forrest (North Fremantle).

A subsequent decision was taken in mid 1935 to place the Fort Forrest guns at Swanbourne (north of Cottesloe). The reason for overlooking the superior Buckland Hill site was the proximity of the Perth to Fremantle railway and main road, plus the concern that the concussion of the guns would damage valuable instruments at the nearby Cottesloe cable station.

When war broke out on 3 September 1939 the 9 inch and 6 inch gun batteries at Rottnest were operational, as were the 6 inch gun batteries at Arthur Head and Swanbourne.

3.7 inch Anti-aircraft Battery Installation

In 1941 four 3.7 inch anti-aircraft guns were deployed to the Buckland Hill area and these became operational late in that year.



3.7 inch anti-aircraft gun and crew

In early 1942 consideration was given to re-locating the Arthur Head battery to Buckland Hill. A probable reason was

concerns by the Navy related to the increased level of shipping in Fremantle Harbour over which the Arthur Head battery would have to fire to defend the examination anchorage and Gage Roads. In June 1942 the decision was taken to re-locate the Arthur Head battery to Buckland Hill (Leighton).

Leighton Examination Battery

It is not clear when construction commenced at the Buckland Hill site but in January/February 1943 two 6 inch guns were moved from Arthur Head. Proof firing of the Leighton Battery occurred on 8 February 1943. The designer was the Commonwealth Department of the Interior and construction was the responsibility of the 7th Troop of the Royal Australian Engineers, the Royal Australian Artillery and the Public Works Department of WA. The Leighton Battery was known as an Examination Battery. Its purpose was to keep a lookout for ships, and, when in view, to advise HQ if the ships were giving the correct identification signals. If a ship did not signal properly, the battery sighted the guns ready to fire, if instructed, a warning shot across the bow of the ship.

The 6 inch guns at Leighton ceased operation in March 1945 and were re-located to the Princess Royal battery at Albany.

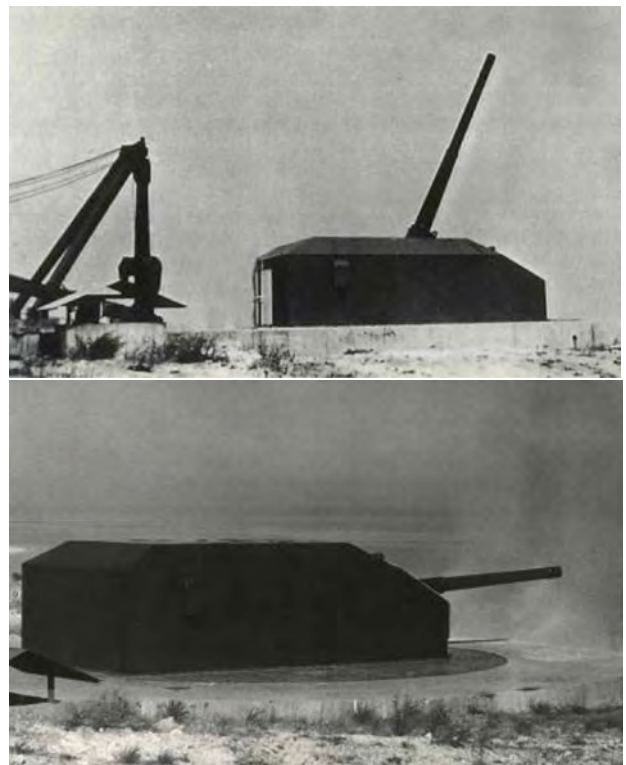
5.25 inch Batteries Planned for Fremantle Fortress

In the second half of 1942 consideration was given to the installation of 5.25 inch dual role coastal artillery/anti-aircraft gun batteries in Australia.

In early 1944 it was decided to install three 5.25 inch batteries at Leighton, South Fremantle and Point Peron. Work commenced at the Leighton site in May

1945, but due to financial constraints it was not completed until the second half of 1947 and the battery was proofed in November of that year. The installation of the South Fremantle battery was commenced but not completed and it was subsequently decided not to proceed with the Point Peron Battery.

Although 5.25 inch dual purpose guns were planned for the defence of every major port in Australia, the Leighton Battery was the only one which actually became operational.



5.25 inch Gun in AA mode (above) and coastal defence mode (below)

Post World War 2 Development

After WW2 the Leighton battery was used for regular army training, and from 1952 by the Citizens' Military Force, which was a significant part of the National Service Scheme. The Army continued to use the facilities at the site until 1963 when the tunnels were closed by bulldozing the entrances.

In 1984 the Commonwealth relinquished its land at Buckland Hill and most of it was sold for re-development. Some land, including the area allocated to the battery, was set aside for public open space. The Owner of the site is the Town of Mosman Park, with whom management of the site was vested by the Government of Western Australia Department of Regional Development.

The Royal Australian Artillery Historical Society of Western Australia (Inc) – RAAHSWA was subsequently granted permissive occupancy of the Battery area and was authorised to develop a military museum at the site.

The developer of Buckland Hill Estate, the residential area south of the battery, worked with the members of the RAAHSWA to conserve the battery tunnels and gun emplacements. During the late 1980s and the 1990s the restoration of the site and conservation work of the battery facilities was undertaken, financed by grants from Commonwealth and State agencies.

The restored Leighton Battery was officially opened, under that name, on 29 November, 1997, by His Excellency Major General Michael Jeffrey AO MC, Governor of Western Australia.

Heritage Listings

The Australian Heritage Commission placed the battery on the Register of the National Estate on 22 June 1993. It was given National Trust Classification on 13 May 1996 and it was accorded a Permanent Entry in the Western Australian Register of Heritage Places on 27 August 1999.

Statement of Significance

The Leighton Battery, the conserved remains of a mostly underground World

War 2 artillery defence installation, comprising a complex of tunnels, various engine, magazine and rest rooms, an observation post, a semi-buried command post, two 6 inch gun emplacements, two 5.25 inch gun emplacements (one of which remains buried), a radar hut, access roads and limestone retaining walls, and the surrounding open space, has cultural and national significance for the following reasons :-

- The battery was an important part of Fremantle Fortress, the coastal defence network established prior to and during World War 2 to protect the Port of Fremantle from enemy sea and air attack.
- The extensive underground defence facility tunnel network is an excellent example of technical achievement.
- The site is a remnant of a much larger military complex which occupied most of Buckland Hill after 1941.
- It is the site of the only 5.25 inch dual use coastal/anti-aircraft battery, of the eight that were planned to protect Australian ports during World War 2, which actually became operational.
- The facilities, and the high level of military interpretation on display, are of considerable significance to men and women who served in Australian Army artillery units in World War 2, and in succeeding wars, as well as of interest to the general public.

Acknowledgements

Engineering Heritage Western Australia acknowledges that it has used the following documents in the preparation of the nomination and this program.

The Western Australian State Heritage Office: Documentation leading to Permanent Entry on the WA State Register of Heritage Places 27 August 1999

Buckland Hill as a Defence Site – Beginnings: Matthew Adams

The Leighton Battery Heritage Site:
www.artillerywa.org.au/raahs/leighton

The Leighton Battery Virtual Tour:
www.artillerywa.org.au/vtour/vtour

Engineering Heritage WA: Nomination of Fremantle Fortress – Rottnest Island WW2 Coastal Defence Facilities for an

Engineering Heritage National Landmark 2010

The Royal Australian Artillery Association WA (Inc): Brochure of Project 2013 Celebrating 75 Years of Artillery History in Western Australia.

The support of the Council and staff of the Town of Mosman Park, the Mosman Park RSL, the National Servicemen's Association and the Committee of the Royal Australian Artillery Historical Society WA, and in particular, Mr Don Rae, is gratefully acknowledged



Aerial view of battery site c. 1947 showing the three 5.25 inch gun installations



712 Murray Street
West Perth WA 6005
Phone: (08) 9321 3340
Fax: (08) 9481 4332
Email: wa@engineersaustralia.org.au
Web: www.engineersaustralia.org.au/wa

APPENDIX 4 - Media Coverage

Leighton Battery saluted

The Leighton Battery on Buckland Hill in Mosman Park has been recognised with Engineering Heritage Australia's highest accolade.

The Engineering Heritage national marker and interpretive panel unveiled last Saturday recognises the construction of the World War II tunnel system.

The battery formed part of Australia's coastal defences known as Fremantle Fortress, which included the Buckland Hill site, Rottnest Island, Arthur Head, Swanbourne, Garden Island and Point Perron.

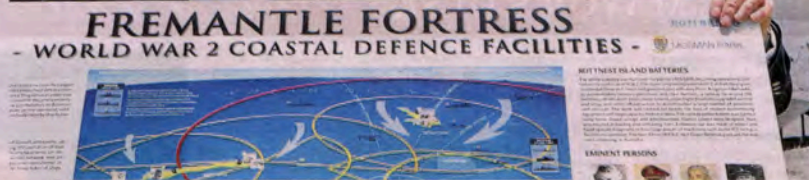
Engineering Heritage WA chairman Mark Bush and convener Don Young prepared the battery's successful nomination.

The interpretive panel was unveiled by Royal Regiment of Australian Artillery representative Colonel Commandant Brigadier Gerry Warner and Royal Australian Artillery Historical Society president David Carter.

Mosman Park council donated \$3000 from its community chest to pay for the panel.

The battery consists of 300m of underground tunnels, engine, magazine and rest rooms, an observation post, a semi-buried command post, two 6-inch gun emplacements, two 5.25-inch gun emplacements (one of which remains buried), a radar hut, access roads and limestone retaining walls.

The battery was an important part of Fremantle Fortress, the coastal defence network established to protect the port



Service saluted ... Ray Palmer and George Howell inspect the interpretive sign. BELOW: Guests inspect memorabilia inside the tunnels. Photos: Lloyd Margetts



of Fremantle from enemy sea and air attack.

Fremantle was an important port during the war, being home to 160 submarines and troop ships. The Queen Mary, then a troop ship, visited Fremantle 19 times during the war.

The extensive underground tunnel network is an excellent technical achievement.

The site is a remnant of a much bigger military complex, which occupied most of Buckland Hill

after 1941.

It is the site of the only 5.25-inch dual-use coastal artillery/anti-aircraft battery that actually became operational during World War II.

Eight batteries had been planned to protect Australian ports.

The Leighton complex, and the high level of military interpretation on display, are of considerable significance to men and women who served

in Australian artillery units in World War II and in succeeding wars, as well as being of interest to the public.

Mosman Park Volunteer of the Year for 2014, Don Rae, said the result, was a fitting tribute to the decades of work he had put into preserving and promoting the historic site.

The site, managed by the Royal Australian Artillery Historical Society WA, is featured on Mosman Park's heritage trail.

FREMANTLE FORTRESS



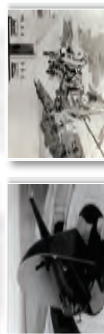
ROTTNEST ISLAND BATTERIES

The whole complex was built over the period 1915-1938, between operational jobs to improve the outbreak of WW2. The main components were two large naval gun turrets installed at Oliver Hill; two gun ships installed back by Point Kingston Barracks, to accommodate military personnel and their families; a railway to service the batteries; observation posts, radar towers, searchlight positions, upgraded airstrip and jetty, and other infrastructure to accommodate a large number of personnel and services. The work was carried out before the day of modern earthmoving equipment and large capacity cranes. The railway embankment was formed by hauling stone from local quarries and wharfboroughs. Gantry cranes were designed, built and erected at heading and loading sites. Extensive use was made of rollers and rollers on rollers to move heavy loads up steep gradients. The guns were mounted on wheels in position. The two Oliver Hill 9.2 inch Coast Defence guns are the only ones remaining in Australia.

EMINENT PERSONS

lieutenant - General Sir J.L. Talbot Hobbs (WW1 artillery expert)

Engineering Heritage National Markers were awarded to Fremantle Fortress-Rottnest Island on 10 Nov, 2010, and to Fremantle Fortresses-Rottnest Island on 23 June 2014.



1990

For more details of this and other engineering heritage awards, go to www.engineersaustralia.org.au/heritageregister/search

APPENDIX 6 - Letters of Appreciation



ROYAL AUSTRALIAN ARTILLERY HISTORICAL SOCIETY OF WESTERN AUSTRALIA (INC.)



10th December 2014

Mr. Will Neethling
President, Engineers Australia
Western Australian Branch

Dear Will,

The Society was delighted with the Ceremony on Saturday, 29th November 2014 recognizing the defence engineering significance of Leighton Battery as part of Fortress Fremantle.

The Interpretative Panel and National Marker has been erected in its permanent location where it will provide a striking reminder to all visitors of the significance of the site in the role it played during World War 2.

I will be pleased if you will convey my thanks to Professor Mark Bush and Mr. Don Young for their contribution towards a most successful Ceremony.

A number of guests approached me on the day expressing how impressed they were with the professional conduct of the event.

With my kindest regards,

David B Carter
President

Hon. Secretary, Royal Australian Artillery Historical Society of WA (Inc.)
Post Office Box 881, Claremont, Western Australia 6910, (08) 9269 4544
ABN 90 413 942 429, email: info@artillerywa.org.au, website: www.artillerywa.org.au

To Mr Don Rae, RAAHSWA

Hello Don,

Congratulations to yourself, Don Young and the many volunteers involved on such a beautifully run event on Saturday. From the moment I arrived I was impressed at the amount of professionalism, friendliness and guidance by the Leighton Battery volunteers- but not that I expected anything less! Everything from the food, the set-up and the people presenting was perfectly informative and interesting. Not to mention the plaque/sign itself, what great value it is going to add by sharing the history and connection of the site to WA, Australia and the War with visitors!

The event booklet was also beautifully presented and such a great way for all the guests to take a little bit of the day home with them. I will be sending the library a copy also to scan and keep in their history files.

Should you have the time, I would love a copy of the speeches from the presenters on the day. They would be wonderful to have as a keepsake with the booklet, with all that great information!

Thank you again for the invitation. I am very much looking forward to the next Leighton Battery project!

Warmest Regards,
Haylie

Haylie Clark
Community Development Officer

